

Serial Number 10/749,564

AMENDMENTS TO SPECIFICATION

Page 12, line 21 to Page 13, line 22:

With reference to Fig. 5, the de-motion-blur processor 40 comprises compression and decompression units 41, 42, and 43, an over drive processing unit 44, and a motion and noise detector 45. The operation of the over drive processing unit 44 is well known as the driving scheme of improving the response time of a flat panel display. The compression and decompression units 41 to 43 help to reduce the bandwidth requirement of frame buffer access since the amount of image data expanded significantly after the deinterlacing and scaling up. The over drive processing unit 44 uses temporal difference value of a pixel of current and previous images to determine the display data for over driving. This improves the response time but it also increases the noise level in some cases, hence, a motion and noise detector 45 is used to avoid the adverse effect. The motion and noise detector 45 receives motion information from the pre-frame buffer processor and compares current and previous frames to calculate temporal difference value of a certain pixel using signals from YC-DPCM compression/decompression units 41 and 42. It also calculates spatial difference between a pixel and its neighboring pixels and controls the over driving of the over drive processing unit 44 according to the motion information and the spatial and temporal difference values. The motion information from the pre-frame-buffer processor includes at least a motion/noise indication signal and a film mode indication signal, such as a still picture indication signal (e.g. 3-2-3-2 repetition signal for NTSC TV system or 2-2-2-2 repetition signal for PAL TV system). The over driving level of the over drive processing unit 44 is determined for the display device according to the spatial and temporal difference value and the motion information of the pixel. A look-up table is used for mapping the difference values to the over driving level. In the over drive processing unit 44, it is determined to directly use the compressed-decompressed image or the image from the scaler 30 bypassing the compression and decompression units (in a word, the over drive processing unit 45-44 is disabled), if the motion information indicates that the picture is in the still mode.